



## Butterfly Project's Pollinator Curriculum Guide Synopsis

In 2006 the Butterfly Project received a grant to create a pollinator curriculum. Conducting background research on existing pollinator curricula, we had discovered a void in two areas. Although there are a plethora of elementary level pollinator curricula, we found none for the junior high level or above. The other thing we noticed during our survey of programs was that all of the curricula were developed for non-urban areas. It is our goal with this curriculum to see that educators teaching students in grades 5-8 will have a resource to teach about pollinators in an urban environment.

Unit Number	Title	Description
1	Function of Plants Flower Dissection	Students review and expand upon basic concepts as they undertake a flower dissection and produce a labeled model with illustrations.
2	How Does Pollination Work?	Students build on their plant knowledge by investigating the process of pollination. They review the reproductive parts of the plant by labeling a diagram, identify the tools a pollinator (bee) uses to help collect pollen and then playact the pollination process.
3	Sorting Out the Pollinators	Students learn about classification of organisms particularly insects. They compare and contrast different pollinators, research local pollinators using field guides and the Internet, classify them using the Linnaean method, and organize the information in a class reference book. They also learn about dichotomous keys and make a simple one using five pollinators of their choice.
4	Field Observation	Students learn to use local field guides. They sharpen their observation skills by participating in an observation/recall game. To test these observation skills, they explore an outdoor area to detect and report on species of pollinators found. Students assess and report on data collected by making charts, graphs, and presentations.
5	The Changing Pollinators	Students review the life cycles of the butterfly and then investigate the relationships between each stage and the plants in its environment through outdoor field study. If resources are available students may find and study larvae in situ or in the classroom.
6	Site Assessment	Students are introduced to the needs of butterflies in urban environments. They play a game to learn about

		island ecology and then assess their local garden for butterfly host suitability and upgrade the space as found necessary.
7	Migration and the Monarchs	Students learn to keep detailed records for local conditions, research weather along the migration route and compare patterns that they record to draw conclusions. They chart the progress of monarchs as they fly through the area as well as act out the trials & tribulations of a group of monarchs on a fall migration. Extensions include a milkweed study to see if the emergence/frost die back affects migration.
8	Bee Watchers!	Students focus on a different group of pollinators: bees. They learn about the important roles that bees play for humans as well as the issues facing native bee species; design and build homes for native bees and participate in a species survey with <i>Bee Watchers</i> .
	Appendices	Glossary, Resources, Color Plates of butterflies and larvae

Butterfly Project is a program of the Open Space Institute